

AMENDMENT AND RESPONSE IN REPLY TO OFFICE ACTION OF 7/05/2002

Applicants: Ohta, et al.

Serial No.: 09/938,280

Examiner: William S. LEE

Group Art Unit 3677

Atty Dkt.: 2019.005

Page 7 of 17

A7
31 each ratchet at a position at which the ratchet cannot engage with the latch after the
32 ratchets disengage from the latch, unless the detection device detects that the door is
33 located at the predetermined position.

Please add new Claims 17, 18 and 19 as follows:

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17. (New) The door closer as set forth in Claim 1, further comprising:
2 a Positive Temperature Coefficient thermistor, which is a protective
3 element.

A8
18. (New) The door closer as set forth in Claim 11, further comprising:
2 a Positive Temperature Coefficient thermistor, which is a protective
3 element.

19. (New) The door closer as set forth in Claim 16, further comprising:
2 a Positive Temperature Coefficient thermistor, which is a protective
3 element.

REMARKS

Claims 1-16 are pending in this application. By this Amendment, Claims 1, 11 and 16 are amended. Claims 1, 11 and 16 are amended for clarification purposes. Claim 2 has been cancelled. New Claims 17, 18 and 19 have been added. No new matter has been added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

AMENDMENT AND RESPONSE IN REPLY TO OFFICE ACTION OF 7/05/2002

Applicants: Ohta, et al.

Serial No.: 09/938,280

Examiner: William S. LEE

Group Art Unit 3677

Atty Dkt.: 2019.005

Page 8 of 17

Specification Objections

Errors in the specification have been corrected to overcome the examiner's objection without adding new matter.

Claim Rejections

The Office Action rejects, under 35 USC § 103(a), Claims 1-16 over Ohta, et al. U.S. Patent No. 6,048,002 and Taga U.S. Patent No. 6,176,528 B1. These rejections are respectfully traversed.

“To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” MPEP 2143.03 citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Applicant asserts that the Ohta, et al and Taga references do not teach or suggest every claim limitation, as recited in independent amended Claims 1, 11 and 16. It is the contention of the Applicant that the detection device 85, 86, and 88 as taught in Taga differs greatly in form from that of the courtesy switch 46 in the present invention. The courtesy switch prevents premature door closure through disallowance of the ratchets from engaging with the latch. Independent Claims 1, 11, and 16, as amended, further distinguish the present novel invention from the prior art by adding limitations contained within the unchanged specification not found in the prior art.

Furthermore, Applicant respectfully disagrees with the esteemed Examiner's contention that Ohta, et al. and the present invention are “substantially the same”. Comparing the claim language of the cited prior art to the present invention, looking at FIGURES 2-12 and 22 of Ohta, et al., and FIGURES 1-13 of the present novel invention

AMENDMENT AND RESPONSE IN REPLY TO OFFICE ACTION OF 7/05/2002

Applicants: Ohta, et al.

Serial No.: 09/938,280

Examiner: William S. LEE

Group Art Unit 3677

Atty Dkt.: 2019.005

Page 9 of 17

will result in a reasonable conclusion that Ohta, et al. and the present invention are not "substantially the same".

Therefore, Applicant respectfully submits that independent Claims 1, 11 and 16 define patentable subject matter. Claims 2-10, depend from independent Claim 1; 12-15 and 18 depend from independent Claim 11, and Claim 19 depends from Claim 16. "If an independent claim is non-obvious under 35 U.S.C. 103, then any claim depending therefrom is non-obvious". *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, Applicant submits that said dependent claims also define patentable subject matter. Accordingly, Applicants respectfully request the withdrawal of the rejection under 35 USC § 103(a).

CONCLUSION

Based on the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance of Claims 1-19 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE**".

AMENDMENT AND RESPONSE IN REPLY TO OFFICE ACTION OF 7/05/2002

Applicants: Ohta, et al.

Serial No.: 09/938,280

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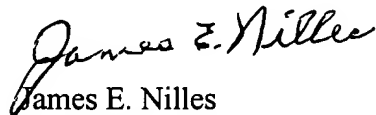
Group Art Unit 3677

Atty Dkt.: 2019.005

Page 10 of 17

The Commissioner is hereby authorized to charge payment of any extension or additional fees associated with this or any other communication, or to credit any overpayment to Deposit Account No. 14-1080.

Respectfully submitted,



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Dated: October 1, 2002

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AMENDMENT AND RESPONSE IN REPLY TO OFFICE ACTION OF 7/05/2002
Applicants: Ohta, et al.
Serial No.: 09/938,280
Examiner: William S. LEE
Group Art Unit 3677
Atty Dkt.: 2019.005
Page 11 of 17

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Wherein deleted material is shown as [bracketed] material and inserted material is shown as underlined material.

IN THE SPECIFICATION:

Page 5, paragraph 4, bridging Page 6, paragraph 1:

30 As shown in Figs. 2 to 4, the latch 8 includes an engagement portion 8d that engages with a coil spring 11, or an urging member. In the same manner, the first ratchet [11] 10 includes an engagement portion 10a that engages with the coil spring 11. The coil spring 11 is thus suspended between the engagement portions 8d, 10a. The first ratchet 8 and [the first] latch 10 are urged toward each other through the coil spring 11.

IN THE CLAIMS:

Please amend Claims 1, 3, 4, 6, 8, 11 and 16 as follows:

- 1 1. (Amended) A door closer that holds a door at a fully closed position by
- 2 engaging with a prescribed engagement member, wherein, when the engagement member
- 3 is disengaged from the door closer, the door moves to a released position that is located
- 4 slightly separate from the fully closed position in a door opening direction, the door
- 5 closer comprising:
- 6 a latch, which engages with the engagement member, wherein the latch
- 7 rotates between an initial position at which the latch receives the engagement member
- 8 and a fully latched position, and wherein, when the latch rotates from the initial position

AMENDMENT AND RESPONSE IN REPLY TO OFFICE ACTION OF 7/05/2002

Applicants: Ohta, et al.

Serial No.: 09/938,280

Examiner: William S. LEE

Group Art Unit 3677

Atty Dkt.: 2019.005

Page 12 of 17

9 to the fully latched position after receiving the engagement member, the door is moved to
10 the fully closed position;

11 an urging member, which urges the latch toward the initial position;

12 a ratchet, which is urged toward the latch, wherein, when the latch reaches
13 the fully latched position, the ratchet engages with the latch to hold the latch at the fully
14 latched position;

15 an actuation mechanism, which separates the ratchet from the latch to
16 disengage the ratchet from the latch, wherein, when the ratchet disengages from the latch,
17 the urging member returns the latch from the fully latched position to the initial position
18 such that the engagement member disengages from the latch and the door moves from the
19 fully closed position to the released position; **[and]**

20 a **[detection device] courtesy switch**, which detects that the door is
21 located at a predetermined position separate from the released position in the door
22 opening direction, wherein the actuation mechanism holds the ratchet at a position at
23 which the ratchet cannot engage with the latch after the ratchet disengages from the latch,
24 unless the detection device detects that the door is located at the predetermined
25 position[.];

26 **a motor, which drives the actuation mechanism; and**

27 **a controller, which controls the motor, said controller containing a**

28 **timer having a settable reference time for latching operations, which when exceeded**

29 **causes said motor to run in an inverse direction to reverse the latching operation.**

Please cancel Claim 2.

AMENDMENT AND RESPONSE IN REPLY TO OFFICE ACTION OF 7/05/2002

Applicants: Ohta, et al.

Serial No.: 09/938,280

Examiner: William S. LEE

Group Art Unit 3677

Atty Dkt.: 2019.005

Page 13 of 17

1 3. (Amended) The door closer as set forth in Claim [2] 1, wherein the
2 controller maintains the motor in a stopped state after the ratchet disengages from the
3 latch, unless the detection device detects that the door is located at the predetermined
4 position.

1 4. (Amended) The door closer as set forth in Claim [2] 1, wherein the
2 controller controls the motor such that the actuation mechanism disengages the ratchet
3 from the latch in accordance with an external instruction.

1 6. (Amended) The door closer as set forth in Claim [2] 1, wherein:
2 the latch rotates from the initial position to the fully latched position via a
3 latching start position;
4 the ratchet is a first ratchet;
5 the door closer further includes a second ratchet, which is urged toward
6 the latch, wherein the second ratchet engages with the latch when the latch reaches the
7 latching start position from the initial position; and
8 the controller instructs the actuation mechanism to move the second
9 ratchet such that the second ratchet rotates the latch to the fully latched position when the
10 second ratchet engages with the latch.

1 8. (Amended) The door closer as set forth in Claim [2] 1, wherein the
2 actuation mechanism includes a rotary body driven by the motor and a rotational position
3 sensor that detects a rotational position of the rotary body, and the controller controls the
4 motor in accordance with the rotational position of the rotary body detected by the
5 rotational position sensor.

AMENDMENT AND RESPONSE IN REPLY TO OFFICE ACTION OF 7/05/2002

Applicants: Ohta, et al.

Serial No.: 09/938,280

Examiner: William S. LEE

Group Art Unit 3677

Atty Dkt.: 2019.005

Page 14 of 17

1 11. (Amended) A door closer that holds a door at a fully closed position by
2 engaging with a prescribed engagement member, wherein, when the engagement member
3 is disengaged from the door closer, the door moves to a released position that is located
4 slightly separate from the fully closed position in a door opening direction, the door
5 closer comprising:

6 a latch, which engages with the engagement member, wherein the latch
7 rotates between an initial position at which the latch receives the engagement member
8 and a fully latched position, and wherein, when the latch rotates from the initial position
9 to the fully latched position after receiving the engagement member, the door is moved to
10 the fully closed position;

11 an urging member, which urges the latch toward the initial position;

12 a ratchet, which is urged toward the latch, wherein, when the latch reaches
13 the fully latched position, the ratchet engages with the latch to hold the latch at the fully
14 latched position;

15 an actuation mechanism, which separates the ratchet from the latch to
16 disengage the ratchet from the latch, wherein, when the ratchet disengages from the latch,
17 the urging member returns the latch from the fully latched position to the initial position
18 such that the engagement member disengages from the latch and the door moves from the
19 fully closed position to the released position;

20 a motor, which drives the actuation mechanism;

21 a controller, which controls the motor, **said controller containing a timer**
22 **having a settable reference time for latching operations, which when exceeded**
23 **causes said motor to run in an inverse direction to reverse the latching operation;**

24 and

AMENDMENT AND RESPONSE IN REPLY TO OFFICE ACTION OF 7/05/2002

Applicants: Ohta, et al.

Serial No.: 09/938,280

Examiner: William S. LEE

Group Art Unit 3677

Atty Dkt.: 2019.005

Page 15 of 17

25 a **[detection device] courtesy switch**, which detects that the door is
26 located at a predetermined position separate from the released position in the door
27 opening direction, wherein the controller maintains the motor in a stopped state such that
28 the actuation mechanism holds the ratchet at a position at which the ratchet cannot
29 engage with the latch after the ratchet disengages from the latch, unless the detection
30 device detects that the door is located at the predetermined position.

1 16. (Amended) A door closer that holds a door at a fully closed position by
2 engaging with a prescribed engagement member, wherein, when the engagement member
3 is disengaged from the door closer, the door moves to a released position that is located
4 slightly separate from the fully closed position in a door opening direction, the door
5 closer comprising:

6 a latch, which engages with the engagement member, wherein the latch
7 rotates between an initial position at which the latch receives the engagement member
8 and a fully latched position, and wherein, when the latch rotates from the initial position
9 to the fully latched position via a latching start position between the initial position and
10 the fully latched position after receiving the engagement member, the door moves to the
11 fully closed position;

12 an urging member, which urges the latch toward the initial position;

13 a latching ratchet, which is urged toward the latch, wherein, when the
14 latch reaches the latching start position from the initial position, the latching ratchet
15 engages with the latch to rotate the latch to the fully latched position;

16 a holding ratchet, which is urged toward the latch, wherein, when the latch
17 reaches the fully latched position, the holding ratchet engages with the latch to hold the
18 latch at the fully latched position;

AMENDMENT AND RESPONSE IN REPLY TO OFFICE ACTION OF 7/05/2002

Applicants: Ohta, et al.

Serial No.: 09/938,280

Examiner: William S. LEE

Group Art Unit 3677

Atty Dkt.: 2019.005

Page 16 of 17

19 an actuation mechanism, which separates the latching ratchet and the
20 holding ratchet from the latch to disengage the ratchets from the latch, wherein, when the
21 ratchets disengage from the latch, the urging member returns the latch from the fully
22 latched position to the initial position such that the engagement member disengages from
23 the latch and the door moves from the fully closed position to the released position;
24 a motor, which drives the actuation mechanism;
25 a controller, which controls the motor, said controller containing a timer
26 having a settable reference time for latching operations, which when exceeded
27 causes said motor to run in an inverse direction to reverse the latching operation;
28 and
29 a [detection device] courtesy switch, which detects that the door is
30 located at a predetermined position separate from the released position in the door
31 opening direction, wherein the controller maintains the motor in a stopped state such that
32 the actuation mechanism holds each ratchet at a position at which the ratchet cannot
33 engage with the latch after the ratchets disengage from the latch, unless the detection
34 device detects that the door is located at the predetermined position.

Please add new Claims 17, 18 and 19 as follows:

1 **17. (New) The door closer as set forth in Claim 1, further comprising:**
2 **a Positive Temperature Coefficient thermistor, which is a protective**
3 **element.**

1 **18. (New) The door closer as set forth in Claim 11, further comprising:**
2 **a Positive Temperature Coefficient thermistor, which is a protective**
3 **element.**

AMENDMENT AND RESPONSE IN REPLY TO OFFICE ACTION OF 7/05/2002

Applicants: Ohta, et al.

Serial No.: 09/938,280

Examiner: William S. LEE

Group Art Unit 3677

Atty Dkt.: 2019.005

Page 17 of 17

- 1 **19.** **(New) The door closer as set forth in Claim 16, further comprising:**
2 **a Positive Temperature Coefficient thermistor, which is a protective**
3 **element.**